Preparing for Criterion-Referenced Tests MontCAS, Phase 2

Co-presented by:
Northwest Regional Educational Laboratory
Montana Office of Public Instruction

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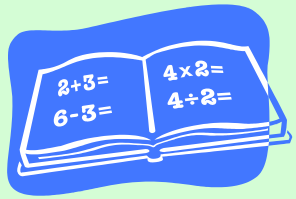
Agenda

1.	INTRODUCTION Overview of MontCAS Purpose for the Workshop Materials for the Workshop	Judy Snow	15 min
2.	SETTING THE CONTEXT Differences Between NRT and CRT Linking to Standards (Cognitive Level) Test Blueprints Introduction to Sample Items	Michael Kozlow	25 min
3.	SAMPLE CONSTRUCTED-RESPONSE ITEMS		
	Grade 4 Reading	Rick Brabec, Libby	20 min
	Grade 8 Reading	Jim Vennes, Great Falls	20 min
	Grade 10 Reading	Kally Porrini, Helena	20 min

Agenda

4.	BREAK		15 min
5.	SAMPLE CONSTRUCTED-RESPONSE ITEMS (CONTINUED)		
	Grade 4 Mathematics	Jen Schwedler, Bozeman	20 min
	Grade 8 Mathematics	Laurie Kinna, Bozeman	20 min
	Grade 10 Mathematics	Cole Maxwell, Arlee	20 min
6.	WRAP-UP	Judy Snow	5 min



Goals for the Workshop

- Differences between NRT and CRT
- Linking Assessments and Standards
- Review of Constructed-Response Sample Items
- Helping Students

Montana Comprehensive Assessment System (MontCAS)

Phase 1

- Norm-referenced test—the Iowas
- Calculator use by IEP only
- Grades 4, 8, 11
- Reading, language arts, math, social studies, science
- Multiple choice
- March 8 – 26, 2004
- Funded by the state

Phase 2

- Criterion-referenced test
- Calculator use for all students on portions of the test
- Grades 4, 8, 10
- Reading and math
- Multiple choice and ***constructed response***
- March 29-April 16, 2004
- Funded by NCLB

Materials

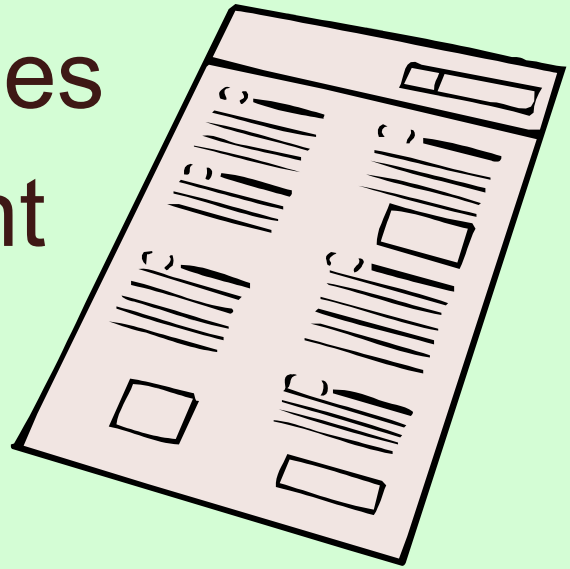
- Sample constructed response items downloaded from web page
  - Reading, grades 4, 8, 10
  - Math, grades 4, 8, 10
- Power point—pre conference
  - Will be updated and posted to include today's notes
  - Power point—post conference

Format

- Presentation style
- Email questions to Judy Snow
  - Will post on assessment web page and in the JUMP newsletter
  - jsnow@state.mt.us

Review of Constructed-Response Sample Questions

- Items
- Rubrics
- Students Responses
- Context for Student Expectations

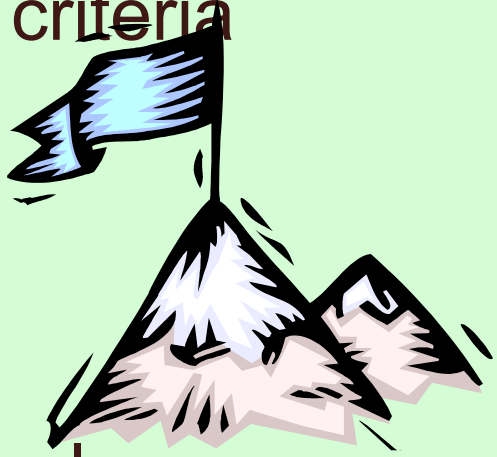


Norm-Referenced Tests

- Norm-referenced tests give information about student performance in comparison to norms for similar students
- Shows how a student or group of students performs in relation to all students in a defined population (state or nation)
- Half of the students in the sample used to create the norms will be below the mid-point (e.g., the 50th national percentile)

Criterion-Referenced Tests

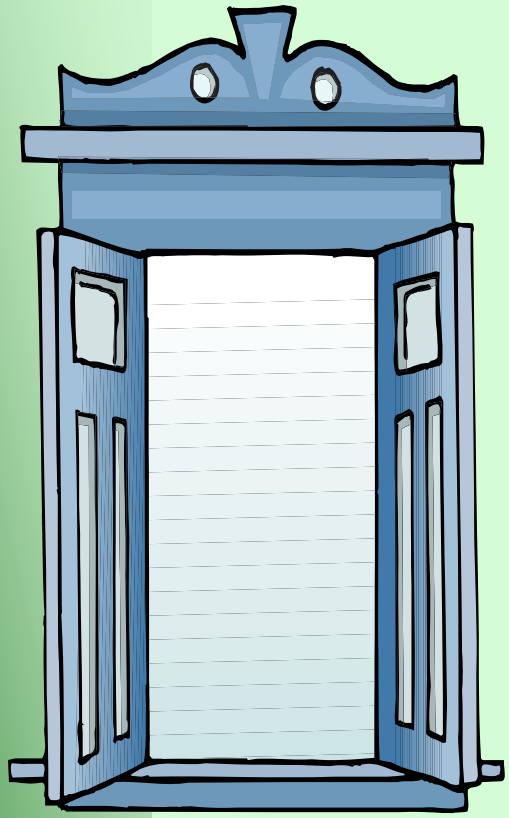
- Assessments that measure a student's progress toward mastery of a content area, based on clearly-defined criteria
- Performance is compared to an expected level of mastery in a content area
- Fixed goal defined by grade-level expectations and cut scores on the tests



How Results Are Reported

- Percentile Rank
- Normal Curve Equivalent
- Grade Equivalent
- Scale Score
- Percent Correct
- Proficiency Level for Individual Students
- Percentage of Students at Proficiency Levels

What Makes a Difference in Assessment Practices?



- Finding better ways to share assessment data with students and families
- How can students be involved in the assessment process?
- How will the impact of assessment guided instruction be monitored over time?

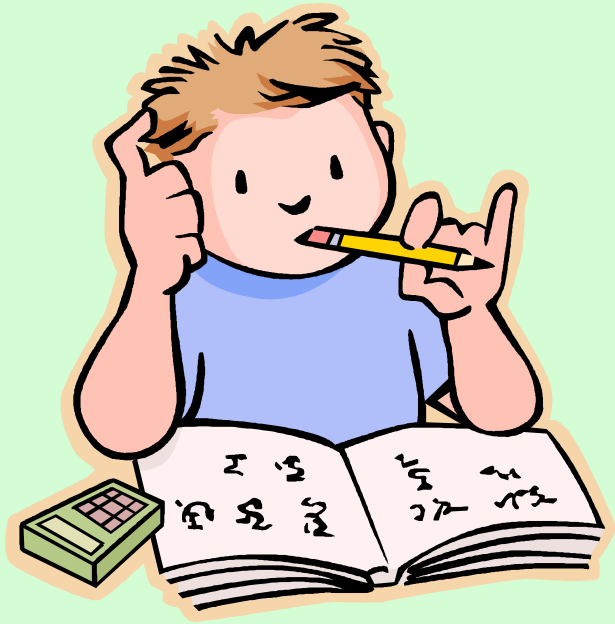
Connecting to Standards

- Content Standards

- Grade Level Learning Expectations

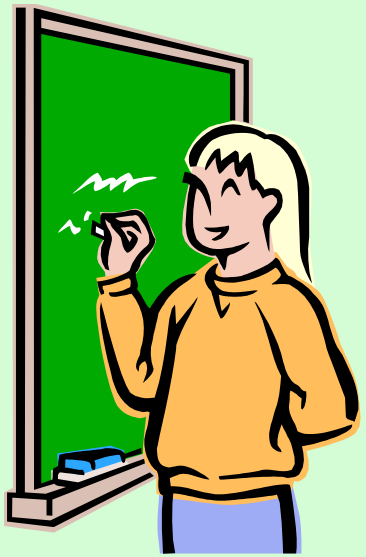
Content Standards

- Represent what students in Montana are expected to know and be able to do as a result of their entire public school experience



Grade Level Learning Expectations

- Specific expectations of what students should know and be able to do at selected grade levels
- Defined for four levels of achievement: advanced, proficient, nearing proficiency, and novice
- Give students and teachers a clear and challenging target
- Help focus energy and resources on the bottom line: student achievement



Cognitive Levels

- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Test Blueprints (Reading)

- Three Sessions (Grades 4 & 8)
  64 multiple-choice items
  3 constructed-response items

- Three Sessions (Grade 10)
  69 multiple-choice items
  3 constructed-response items

Test Blueprint (Mathematics Grades 4 & 8)

- Sessions 1 & 2A (Calculator)
  32 multiple-choice items
  2 constructed-response items

- Sessions 2B & 3 (No Calculator)
  24 multiple-choice items
  4 short-answer item
  2 constructed-response item

Test Blueprint (Mathematics Grade 10)

- Sessions 1 & 2A (Calculator)
  35 multiple-choice items
  2 constructed-response items

- Sessions 2B & 3 (No Calculator)
  31 multiple-choice items
  4 short-answer items
  2 constructed-response items

Sample Items

- Connect instruction and assessment to the standards

- Create similar items

- Report student progress in relation to grade level expectations (proficiency levels)

Review of Items

- Reading (4, 8, 10)
- Mathematics (4, 8, 10)
- Items and Rubrics
- Differences in Levels
- How To Help Students

Grade 4 Reading Samples Score Differences

- Score of 4: Two clear ideas with support.
- Score of 3: Understanding of question; two clear examples with some support
- Score of 2: Example is accurate but sketchy without support.
- Score of 1: Vague and incomplete

Grade 4 Reading Samples Teaching Strategies

- Multiple step questions every day and follow through on complete responses
- Outlining in other subject
- Teach decoding and self-questioning strategies

Grade 8 Reading Sample Score Differences

- Score of 4: Complete description of formation with supporting details such as 81 degrees and 75 mph
- Score of 3: General understanding with some minor inaccuracies. Fewer supporting details
- Score of 2: Mostly correct but need more details
- Score of 1: Vague statements or misses gist of article

Grade 8 Reading Samples Teaching Strategies

- Reciprocal teaching: students learn skills of predicting, questioning, clarifying, and summarizing
- Concept mapping or outlining a passage
- Read question before reading passage
- Practice using rubric with this type of item and response

Grade 10 Reading Samples Score Differences

- Score of 4: Two very distinct things in in the Ojibwa way of life are listed and each part is supported by one or two details from the myth.
- Score of 3; One thing in the Ojibwa way of life is listed and two different aspects of this part of life are supported.

Grade 10 Reading Sample Score Differenced Cont'd

- Score of 2: One of two things in the Ojibwa way of life are listed and limited or incomplete information is given.
- Score of 1: Only one correct thing in the Ojibwa way of life is listed and no supporting information is given.

Grade 10 Reading Samples Teaching Strategies

- Turn passive reader into active readers who
  - Give themselves a purpose for reading by reading the question first
  - Visualize what they are reading about
  - Visualize themselves in the reading
  - Take notes while reading
  - Paraphrase
  - Summarize
  - Question

Grade 10 Reading Samples Teaching Strategies Cont'd

- Practice written responses to reading selections.
  - Regularly
  - Use a rubric similar to the sample one
    - As structure for the response
    - To evaluate the response
  - Ask students to underline or highlight the parts of their answers that fit the rubric.

Reading Test Taking Strategies

- Read question first
- Read passage for information about question
- Use information from passage
  - Not personal opinion
  - No knowledge from other sources
- Give at least two examples
  - Support both with details from passage

Grade 4 Math Samples
Score Differences

- Score of 4: States rule correctly and explicitly.
- Score of 3: Does not express what number should be added despite the fact that a mathematically consistent pattern was shown
- Score of 2: Rule only shows basic understanding of pattern.

Grade 4 Math Samples Teaching Strategies

- Align Assessment and instruction closely aligned
- Emphasize reasoning, communication, and problem solving
- Engage students engaged in self-assessment
- Use performance tasks as instruction tools
- Encourage collaboration of performance tasks in heterogeneous groups

Grade 4 Math Samples Strategies Continued

- Integrate authentic literacy experiences into math instruction
- Explicit instruction in math writing
- Differentiate instruction

Grade 10 Math Samples Score Differences

- Keep the numerator and denominator of all ratios the same units
- Label each part of the question
- Do not skip steps
- Show work to justify each step of solution

Grade 10 Math Samples Teaching Strategies

- Reading math is important
- Use math vocabulary
  - Translation, rotation, reflection instead of slide, turn, and flip
- Practice “story” problems or problems in sentence form
- Practice going beyond answer to logical and sequential justification.

Math Test Taking Strategies

- Label each part of the question
- Label charts, tables, axes
- Do not skip steps
- Show work to justify each step of solution
- Use math vocabulary
- Go beyond answer to logical and sequential justification.

Facilitators

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- Judy Snow
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  Office of Public Instruction